

## SITE SPECIFIC ALTERNATIVE PRACTICE CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Northwest Management, Inc. (Jim Cancroft) ~ Anderson
<b>Proposed Implementation Date:</b>	September 3, 2008
<b>Proponent:</b>	Northwest Management, Inc. (Jim Cancroft)
<b>Location:</b>	T8N, R5W, Sections 8 & 9
<b>County:</b>	Lewis & Clark
<b>Land Owner:</b>	David & Cecelia Anderson
<b>HRA #:</b>	

### I. TYPE AND PURPOSE OF ACTION

#### A. Type of Action: SMZ Alternative Practice:

Proponent is requesting an SMZ Alternative Practice to Rule 4:(36.11.304), *Operation of Equipment in the SMZ*.

Northwest Management, Inc. (Jim Cancroft) is proposing a salvage timber harvest on of land belonging to David & Cecelia Anderson, near Rimini, Montana. Lodgepole pine infested with mountain pine beetle is slated for removal.

#### Indicators – Mountain Pine Beetle:

Field evaluations varified increased mountain pine beetle activity. Indications of bark beetle activity include:

- Popcorn-shaped masses of resin, called "pitch tubes," on the trunk where beetle tunneling begins. Pitch tubes may be brown, pink or white.
- Boring dust in bark crevices and on the ground immediately adjacent to the tree base.
- Evidence of woodpecker feeding on trunk. Patches of bark are removed and bark flakes lie on the ground or snow below tree.
- Foliage turning yellowish to reddish throughout the entire tree crown. This usually occurs eight to 10 months after a successful Mountain Pine Beetle attack.
- Presence of live MPB (eggs, larvae, pupae and/or adults) as well as galleries under bark. This is the most certain indicator of infestation. A hatchet for removal of bark is needed to check trees correctly.
- Blue-stained sapwood. Check at more than one point around the tree's circumference.<sup>1</sup>

Due to the amount of MPB activity and to increase forest health and vigor, the proponent would like to:

1. Operate wheeled or tracked equipment in the SMZ at a crossing location on a Class-3 stream segment. The stream channel has been determined to be Class-3 as it does not support fish, has surface flow during less then 6 months of the year, and rarely contribute surface flow to another stream, lake or other body of water.

<sup>1</sup> D.A. Leatherman, "Mountain Pine Beetle", # 5.528, Colorado State University Cooperative Extension. Available at: <http://www.ext.colostate.edu/pubs/insect/05528.html>

Pre-approved alternatives are in place for equipment operation in the SMZ on a Class-3 stream segment when:

- Crossings are located approximately 200 feet or more apart, and in dry areas with stable banks and bottoms.
- Excavation is minimized.
- The distance traveled through the SMZ is minimized
- Crossings occur only during periods when the stream is dry.
- The capacity of the stream channel is maintained.

Because the stream channel is currently flowing with water, an Alternative Practice is necessary. Proponent would like to place a rubber mat or log bundle at the crossing location to protect stream bed and banks. This crossing would be used to skid approximately 15 truck loads of sawlog material. Soil that is disturbed during harvesting operations at this location would be seeded to reestablished vegetation and reduce sediment runoff. Slash-filter wind-rows would be constructed approximately 10 feet from the bank's edge and perpendicular to both approaches to reduce the chance of sediment reaching the stream channel.

#### **B. Purpose of Action: Timber Harvest**

Proponent has put forth a salvage timber harvest to mitigate impacts to private property as a result of damage caused by the MPB. This action should also increase forest health and vigor as well as provide a source of income to the landowner by recovering the current value of marketable lodgepole pine.



## II. PROJECT DEVELOPMENT

### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

Northwest Management, Inc. (Jim Cancroft) shall be responsible for obtaining other permits/licenses if so required.

### 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

None required for the alternative practice request.

### 3. ALTERNATIVES CONSIDERED:

#### 3.1 Alternative "A": Not approve Alternative Practice (No Action)

Proposed SMZ Alternative Practice would not be approved. Current MPB conditions would most likely increase, resulting in significant damage to the remaining non-infested lodgepole pine. The proposed forest management and harvesting actions would be abandoned.

#### 3.2 Alternative "B": Alternative as Proposed

Allow SMZ Alternative Practices as proposed with additional mitigation measures.

**Equipment Operation:** Allow equipment operation in the SMZ at one location as identified on the attached map. Rubber mats or a log bundle would be placed in the stream channel to protect bed and banks. Soil disturbance within the SMZ should it occur, would be seeded with appropriate grass mixture to establish a vegetative filter to reduce sediment runoff. The construction of a slash-filter wind-row would be placed approximately 10 feet from the bank's edge and perpendicular to both approaches to reduce the chance of sediment reaching the stream channel after operational use of the skid trail.

## III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

Harvest operations should be done during dry or frozen ground conditions to prevent rutting. Degradation to the soil should be minimal due to the relatively small amount of forest products being cut. Mitigation measures such as grass seeding exposed soil areas should reduce the potential of sediment runoff.

## **5. WATER QUALITY, QUANTITY AND DISTRIBUTION:**

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

**Is it possible that implementing this Alternative Practice would impact the integrity of the SMZ and these specific functions?**

1. Ability to act as an effective sediment filter.
2. Ability to provide shade to regulate stream temperature.
3. Protection of stream channel and banks.
4. Ability to provide large woody debris for eventual recruitment into the stream to maintain riffles, pools and other elements of channel stability.
5. Promotes floodplain stability.

The proposed project would be implemented during dry or frozen ground conditions and should not adversely impact the six functions of a SMZ, as identified in the SMZ law (77-5-301[1] MCA).

1. Harvest operation would take place during dry or frozen ground conditions to prevent soil rutting. Because of this and the small amount of wood being harvested, minimal disturbance to the soil is expected. If soil displacement would happen, the area in question would be grass seeded immediately following the harvest to reestablish vegetation.
2. Retention requirements for a class 3 stream would be maintained in the SMZ.
3. Equipment operation would be restricted to the location identified on the map.
4. Ample tree volume shall be maintained to provide future recruitment into stream channel to maintain riffles, pools, and other element of channel structure by maintaining the minimum tree retention requirement for salvage.

## **6. AIR QUALITY:**

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

None.

## **7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

No rare plants have been identified within the proposed project area. Implementation of these alternatives practices with proposed mitigation measures should not dramatically impact any vegetative communities within the SMZ.

## **8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

**Would implementing this Alternative Practice impact the ability of the SMZ to support diverse and productive aquatic and terrestrial habitats?**

Mountain pine beetle is prevalent in mature lodgepole found throughout this ownership. The declining forested stand should give way to a flush of new pine regeneration after harvest, changing terrestrial

habitats. Implementation of this alternative practice in and of itself should not dramatically impact aquatic and terrestrial habitats.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

None.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

None.

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

None.

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

None.

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

None.

**IV. IMPACTS ON THE HUMAN POPULATION**

- RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

None.

**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

None.

**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

None.

**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

None.

**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.*

None.

**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

None.

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

None.

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

None.

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

None.

**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

None.

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

None.

<b>EA Checklist Prepared By:</b>	<b>Name:</b>	Shawn P. Morgan	<b>Date:</b>	
	<b>Title:</b>	Helena Unit Forester		

## V. FINDING

### 25. ALTERNATIVE SELECTED:

ALTERNATIVE AS MITIGATED: Approve alternative practice to allow operation of equipment in the SMZ during periods of dry or frozen ground conditions.

The following mitigation measures are recommended:

1. Allow equipment operation in the SMZ at one location as identified on the attached map. Rubber mats or log bundle would be placed in the stream channel to protect bed and banks.
2. Soil disturbance within the SMZ should it occur, would be seeded with appropriate grass mixture to establish a vegetative filter to reduce sediment runoff.
3. The construction of a slash-filter wind-row would be placed approximately 10 feet from the bank's edge and perpendicular to both approaches to reduce the chance of sediment reaching the stream channel. This would be constructed immediately after operational use of the skid trail.

### 26. SIGNIFICANCE OF POTENTIAL IMPACTS:

Measures Recommended To Mitigate Potential Impacts: None expected. See Section 25 of this document, mitigation measures.

### 27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

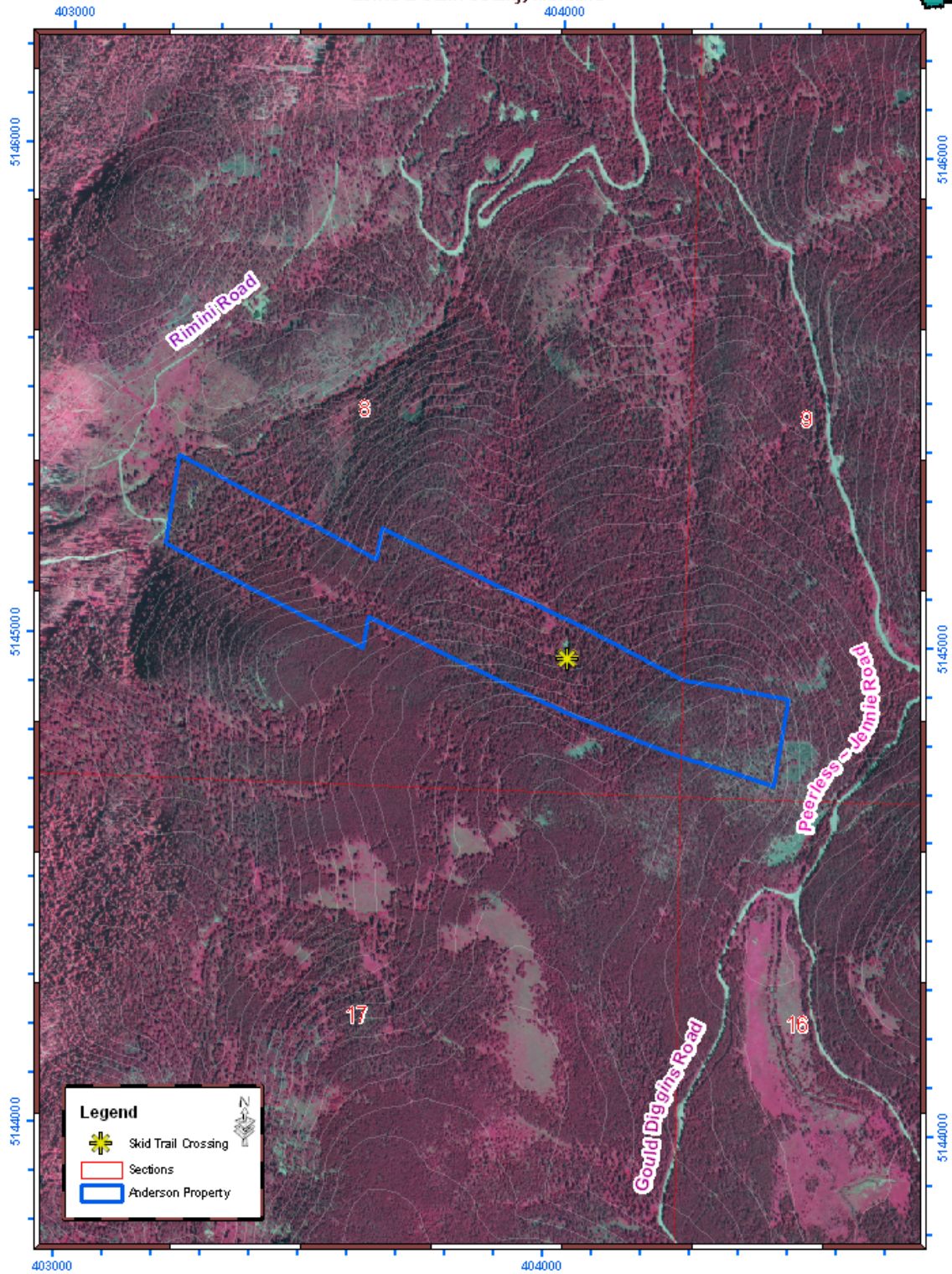
		EIS		More Detailed EA		No Further Analysis
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<b>EA Checklist Approved By:</b>	<b>Name:</b>	D.J. Bakken		
	<b>Title:</b>	DNRC, Helena Unit Manager		
<b>Signature:</b>	/s/ Darrel J. Bakken			<b>Date:</b> 9/4/2008

## ATTACHMENTS SMZ Alternative Practice Map



David & Cecelia Anderson Property  
T8N, R5W, Sec. 8 & 9  
Lewis & Clark County, Montana



**Legend**

- Skid Trail Crossing
- Sections
- Anderson Property



Mapped By: Shawn Morgan

Contour Line Interval - 40 Feet  
GRID: NAD 1927, UTM 12 North



